

What is claimed is:

- 1 1. A blower comprising:
2 a blower housing having a chamber;
3 an impeller rotatably received in said chamber, said impeller having a plurality
4 of blades; and
5 at least one resonator ring associated with one of said blower housing and said
6 impeller, said resonator ring having a plurality of resonator cavities for absorbing
7 noise generated by said plurality of blades.
- 1 2. The blower according to claim 1, wherein said impeller has a plurality blades with a
2 blade gap therebetween, wherein said resonator ring includes said plurality of
3 resonator cavities, and wherein a number of said blade gaps corresponds to a number
4 of said plurality of resonator cavities.
- 1 3. The blower according to claim 2, wherein each said resonator cavity is fluidly
2 connected to one of said corresponding blade gaps.
- 1 4. The blower according to claim 1, wherein said impeller comprises;
2 a hub; and
3 a disc radially extending from said hub;
4 said resonator ring disposed between said disc and said plurality of blades.
- 1 5. The blower according to claim 4, wherein said impeller has a plurality of blades with
2 a blade gap therebetween; and wherein each said resonator cavity is fluidly connected
3 to one of said corresponding blade gaps.
- 1 6. The blower according to claim 5, wherein said resonator ring comprises:
2 a facing surface, said facing surface having said resonator cavity which
3 comprises a neck fluidly connected to a pocket, wherein said pocket is at least
4 somewhat larger than said neck.

- 1 7. The blower according to claim 6, wherein at least one of said resonator cavities is
2 filled with damping material.
- 1 8. The blower according to claim 6, further comprising:
2 a ring plate secured to said disc and at least partially enclosing said resonator
3 cavity.
- 1 9. The blower assembly according to claim 1, wherein said impeller has two resonator
2 rings on each side thereof; each said resonator ring having a plurality of cavities; said
3 impeller having a plurality of blades with a blade gap between each, wherein said
4 plurality of cavities of each said resonator ring are fluidly connected to one of said
5 corresponding blade gaps.
- 1 10. A blower comprising:
2 a motor having a rotatable shaft;
3 a blower housing having a chamber, said blower housing having an inlet
4 opening and an outlet opening;
5 an impeller secured to said shaft and received in said blower housing; and
6 a baffle assembly sub-dividing at least one of said inlet and said outlet
7 openings.
- 1 11. The blower according to claim 10, further comprising:
2 a sleeve forming each of said inlet and outlet openings, said sleeve having an
3 interior wall;
4 said baffle assembly comprising a baffle plate extending between substantially
5 opposite sides of said interior wall.
- 1 12. The blower according to claim 11, wherein said baffle plate comprises:
2 a wide edge connected to one side of said interior wall;
3 a narrow edge connected to an opposite side of said interior wall;
4 a housing edge connecting said wide edge to said narrow edge, said housing
5 edge facing away from said impeller; and

6 an impeller edge connecting said wide edge to said narrow edge, said impeller
7 edge facing said impeller.

1 13. The blower according to claim 12, wherein said impeller has a plurality of radially
2 extending impeller blades, wherein said baffle plate comprises a blade side which
3 substantially faces said impeller blades.

1 14. The blower according to claim 13, wherein said baffle plate sub-divides at least one
2 of said inlet and outlet openings into a primary flow aperture and a secondary flow
3 aperture.

1 15. The blower according to claim 14, wherein said chamber is substantially toroidal and
2 has an endbell side adjacent said motor and a blower cover side away from said
3 motor, and wherein said baffle plate primarily directs air flow generated by said
4 impeller facing said motor side through said primary flow aperture and directs airflow
5 generated by said impeller facing said cover side primarily through said secondary
6 flow aperture.

1 16. The blower according to claim 15, further comprising:
2 a wing extending from said interior wall into said primary flow aperture.

1 17. The blower according to claim 16, wherein said wing is substantially perpendicular
2 to said baffle plate.

1 18. The blower according to claim 17, wherein said wing has wing edges which converge
2 to a wing tip, wherein said wing tip points toward said narrow edge.

1 19. The blower according to claim 17, further comprising:
2 a wing support bracket connected between seed win and said interior wall and
3 extending toward said narrow edge.

- 1 20. The blower according to claim 10, further comprising:
2 a sleeve forming each of said inlet and outlet openings, said sleeve having an
3 interior wall; and
4 a wing extending from said inferior wall and into said opening.
- 1 21. The blower according to claim 20, wherein said impeller has plurality of radially
2 extending impeller blades, wherein said wing is positioned so as to primarily face said
3 impeller blades.
- 1 22. The blower according to claim 10, wherein said impeller has a plurality of blades with
2 a gap therebetween each of said blades, and wherein said impeller has a plurality of
3 resonator cavities that correspond with said gaps.
- 1 23. A blower comprising:
2 a motor having a rotatable shaft;
3 an blower housing having a chamber, said blower housing having an inlet
4 opening and an outlet opening;
5 an impeller secured to said rotatable shaft and received in said blower housing,
6 said impeller having a plurality of blades with a gap therebetween and at least one
7 resonator cavity fluidly connected with each of said gaps; and
8 a baffle assembly sub-dividing at least one of said inlet and outlet openings.